

**=> IFW: Scan as Doc Code: SRNT <=  
Doc Date:**

### **TC 3700 Inventor Search Program**

See attached inventor searches for applications and/or patents to help resolve questions of overlapping subject matter. These searches are provided as an initial examination aid: examiners should perform updated or expanded PALM or EAST inventors searches as appropriate.

---

**Serial Number: 10/763,303**

**1.) See attached printout of inventors listed in  
PALM**

**2.) See attached EAST Inventor Search  
Printout shows Inventor search terms**

Day : Friday  
Date: 5/5/2006  
Time: 11:09:53

 PALM INTRANET

## Inventor Information for 10/763303

Inventor Name	City	State/Country
GHOSHAL, UTTAM	AUSTIN	TEXAS
MINER, ANDREW CARL	AUSTIN	TEXAS

[Appln Info](#)[Contents](#)[Petition Info](#)[Atty/Agent Info](#)[Continuity Data](#)[Foreign Data](#)[Inventors](#)Search Another: Application#  or Patent#  PCT /  /  or PG PUBS #  Attorney Docket #  Bar Code #  

To go back use Back button on your browser toolbar.

Back to [PALM](#) | [ASSIGNMENT](#) | [OASIS](#) | [Home page](#)

US 20060088271 A1	US- PGPUB	20060427	22	Transient thermoelectric cooling of optoelectronic devices	385/147		Ghoshal; Uttam
US 20060086096 A1	US- PGPUB	20060427		Thermoelectric cooling and/or moderation of transient thermal load using phase change material	62/3.2	62/259.2; 62/3.7	Ghoshal; Uttam
US 20060076046 A1	US- PGPUB	20060413		Thermoelectric device structure and apparatus incorporating same	136/205	136/212	Ghoshal; Uttam et al.
US 20060073024 A1	US- PGPUB	20060406		Series gated secondary loop power supply configuration for electromagnetic pump and integral combination thereof	417/50	417/48	Ghoshal; Uttam et al.
US 20060073023 A1	US- PGPUB	20060406	28	Integrated electromagnetic pump and power supply module	417/50	417/48	Ghoshal; Uttam et al.
US 20050160752 A1	US- PGPUB	20050728	22	Apparatus and methodology for cooling of high power density devices by electrically conducting fluids	62/259.2	165/104.28; 62/118	Ghoshal, Uttam et al.
US 20050150539 A1	US- PGPUB	20050714		Monolithic thin-film thermoelectric device including complementary thermoelectric materials	136/205	136/201	Ghoshal, Uttam et al.
US 20050150537 A1	US- PGPUB	20050714	23	Thermoelectric devices	136/205		Ghoshal, Uttam
US 20050150536 A1	US- PGPUB	20050714	22	Method for forming a monolithic thin-film thermoelectric device including complementary thermoelectric materials	136/201	136/205	Ngai, Tat et al.
US 20050150535 A1	US- PGPUB	20050714	22	Method for forming a thin-film thermoelectric device including a phonon-blocking thermal conductor	136/201	136/205	Samavedam, Srikanth B. et al.
US	US-	20041230		METHOD AND	257/713	257/930;	Cordes,

20040262745 A1	PGPUB			APPARATUS FOR THERMAL MANAGEMENT OF INTEGRATED CIRCUITS		257/E23.082; 438/122; 438/125	Michael James et al.
US 20040234392 A1	US- PGPUB	20041125		Magnetohydrodynamic pumps for non- conductive fluids	417/410.1		Ghoshal, Uttam et al.
US 20040234379 A1	US- PGPUB	20041125		Direct current magnetohydrodynamic pump configurations	417/50		Miner, Andrew Carl et al.
US 20040182088 A1	US- PGPUB	20040923		Cooling of electronics by electrically conducting fluids	62/3.7	165/104.19; 257/E23.098; 257/E23.114; 62/259.2	Ghoshal, Uttam et al.
US 20040028117 A1	US- PGPUB	20040212		Scanning heat flow probe	374/179	374/29	Cordes, Steven Alan et al.
US 20040018729 A1	US- PGPUB	20040129		Enhanced interface thermoelectric coolers with all-metal tips	438/689		Ghoshal, Uttam Shyamalindu et al.
US 20030186471 A1	US- PGPUB	20031002		Method and apparatus for measuring dopant profile of a semiconductor	438/14		Shi, Li et al.
US 20030169798 A1	US- PGPUB	20030911		Scanning heat flow probe	374/29	374/208	Cordes, Steven Alan et al.
US 20030156623 A1	US- PGPUB	20030821		Scanning heat flow probe	374/179	374/141	Cordes, Steven Alan et al.
US 20030113950 A1	US- PGPUB	20030619		MONOLITHICALLY INTEGRATED COLD POINT THERMOELECTRIC COOLER	438/54		Cooper, Emanuel Israel et al.
US 20030112844 A1	US- PGPUB	20030619		Scanning heat flow probe	374/29	374/1; 374/179	Cordes, Steven Alan et al.
US 20030111516 A1	US- PGPUB	20030619		Integrated quantum cold point coolers	228/134	228/208	Ghoshal, Uttam Shyamalindu
US 20020166839 A1	US- PGPUB	20021114		Enhanced interface thermoelectric coolers with all-metal tips	216/11	136/200; 216/105; 216/41	Ghoshal, Uttam Shyamalindu

							et al.
US 20020160563 A1	US- PGPUB	20021031		Practical air dielectric interconnections by post-processing standard CMOS wafers	438/214	257/E21.581; 257/E23.013; 257/E23.144	Ghoshal, Uttam Shyamalindu
US 20020113289 A1	US- PGPUB	20020822		Method and apparatus for thermal management of integrated circuits	257/528	257/E23.082	Cordes, Michael James et al.
US 20020095243 A1	US- PGPUB	20020718		Method and apparatus for characterization of thermal response of GMR sensors in magnetic heads for disk drives	700/299		Ghoshal, Uttam Shyamalindu
US 20020092557 A1	US- PGPUB	20020718		Enhanced interface thermoelectric coolers with all-metal tips	136/201	136/203; 136/205; 136/238	Ghoshal, Uttam Shyamalindu
US 20020092307 A1	US- PGPUB	20020718		Thermoelectric spot coolers for RF and microwave communication integrated circuits	62/3.7	136/204; 257/E23.082; 62/259.2	Ghoshal, Uttam Shyamalindu
US 20020071223 A1	US- PGPUB	20020613		Multi-stage thermoelectric microcoolers for cooling write coils and GMR sensors in magnetic heads for disk drives	360/317	360/128	Ghoshal, Uttam Shyamalindu
US 20020071222 A1	US- PGPUB	20020613		Thermoelectric microcoolers for cooling write coils and GMR sensors in magnetic heads for disk drives	360/317	360/128	Ghoshal, Uttam Shyamalindu
US 20020062648 A1	US- PGPUB	20020530		Apparatus for dense chip packaging using heat pipes and thermoelectric coolers	62/3.7	165/104.26; 165/104.33; 257/E23.082; 257/E23.088; 62/259.2	Ghoshal, Uttam Shyamalindu
US 6907322 B2	USPAT	20050614		Method and apparatus for characterization of thermal response of GMR sensors in magnetic heads for disk drives	700/299	360/322; 360/324; 360/55; 360/97.02	Ghoshal; Uttam Shyamalindu
US 6893902 B2	USPAT	20050517		Method and apparatus for thermal management	438/122	136/203; 257/712;	Cordes; Michael

				of integrated circuits		257/719; 257/E23.082; 438/125	James et al.
US 6893884 B2	USPAT	20050517		Method and apparatus for measuring dopant profile of a semiconductor	438/17	324/765; 324/769; 438/14	Shi; Li et al.
US 6866415 B2	USPAT	20050315		Scanning heat flow probe	374/29	374/1	Cordes; Steven Alan et al.
US 6817761 B2	USPAT	20041116		Scanning heat flow probe	374/179	374/43; 374/44	Cordes; Steven Alan et al.
US 6740600 B2	USPAT	20040525		Enhanced interface thermoelectric coolers with all-metals tips	438/754	136/203; 136/205; 438/739; 438/742	Ghoshal; Uttam Shyamalindu et al.
US 6712258 B2	USPAT	20040330		Integrated quantum cold point coolers	228/134		Ghoshal; Uttam Shyamalindu
US 6708501 B1	USPAT	20040323		Cooling of electronics by electrically conducting fluids	62/3.7	165/104.19; 257/E23.098; 257/E23.114; 62/259.2	Ghoshal; Uttam et al.
US 6679625 B2	USPAT	20040120		Scanning heat flow probe	374/29	374/113; 374/43; 374/57	Cordes; Steven Alan et al.
US 6661303 B1	USPAT	20031209		Cross talk suppression in a bidirectional bus	333/1	327/551; 333/12	Ghoshal; Uttam Shyamalindu
US 6658861 B1	USPAT	20031209		Cooling of high power density devices by electrically conducting fluids	62/3.7	257/E23.098; 62/259.2	Ghoshal; Uttam et al.
US 6652139 B2	USPAT	20031125		Scanning heat flow probe and the method of fabricating the same	374/208	374/179; 374/29	Cordes; Steven Alan et al.
US 6650163 B1	USPAT	20031118		Clock generator for integrated circuit	327/295	327/304	Burns; Jeffrey L. et al.
US 6614109 B2	USPAT	20030902		Method and apparatus for thermal management of integrated circuits	257/712	136/203; 257/719; 257/E23.082	Cordes; Michael James et al.
US 6613602 B2	USPAT	20030902		Method and system for forming a thermoelement for a	438/54	257/930	Cooper; Emanuel Israel et al.

				thermoelectric cooler			
US 6608250 B2	USPAT	20030819		Enhanced interface thermoelectric coolers using etched thermoelectric material tips	136/201	136/203; 136/205; 205/667; 216/11; 216/13; 216/20; 216/38; 216/39; 216/49; 216/75; 216/88; 216/99; 438/745; 438/753	Ghoshal; Uttam Shyamalindu
US 6598403 B1	USPAT	20030729		Nanoscope thermoelectric refrigerators	62/3.2	62/3.3; 62/3.6; 62/3.7	Ghoshal; Uttam Shyamalindu
US 6597544 B2	USPAT	20030722		Thermoelectric microcoolers for cooling write coils and GMR sensors in magnetic heads for disk drives	360/317	360/121; 360/128; 360/97.02	Ghoshal; Uttam Shyamalindu
US 6595004 B1	USPAT	20030722		Apparatus and methods for performing switching in magnetic refrigeration systems using thermoelectric switches	62/3.1	62/335	Ghoshal; Uttam Shyamalindu
US 6588217 B2	USPAT	20030708		Thermoelectric spot coolers for RF and microwave communication integrated circuits	62/3.7	257/E23.082; 62/259.2; 62/3.2; 62/3.4; 62/3.6	Ghoshal; Uttam Shyamalindu
US 6588216 B1	USPAT	20030708		Apparatus and methods for performing switching in magnetic refrigeration systems	62/3.1		Ghoshal; Uttam Shyamalindu
US 6588215 B1	USPAT	20030708		Apparatus and methods for performing switching in magnetic refrigeration systems using inductively coupled thermoelectric switches	62/3.1	62/335	Ghoshal; Uttam Shyamalindu
US 6535342 B1	USPAT	20030318		Apparatus, system and method for writing information onto	360/55	360/122	Ghoshal; Uttam Shyamalindu

				magnetic media field of the invention			
US 6494048 B1	USPAT	20021217		Assembly of quantum cold point thermoelectric coolers using magnets	62/3.7	62/3.2; 62/3.6	Ghoshal; Uttam Shyamalindu et al.
US 6487515 B1	USPAT	20021126		Method and apparatus for measuring thermal and electrical properties of thermoelectric materials	702/136	136/228; 374/45; 73/105	Ghoshal; Uttam Shyamalindu
US 6474074 B2	USPAT	20021105		Apparatus for dense chip packaging using heat pipes and thermoelectric coolers	62/3.7	165/104.21; 165/104.33; 257/E23.082; 257/E23.088; 361/688; 62/259.2	Ghoshal; Uttam Shyamalindu
US 6467951 B1	USPAT	20021022		Probe apparatus and method for measuring thermoelectric properties of materials	374/45	136/227; 324/451; 374/179; 374/43	Ghoshal; Uttam Shyamalindu
US 6467275 B1	USPAT	20021022		Cold point design for efficient thermoelectric coolers	62/3.3	136/204; 62/3.7	Ghoshal; Uttam Shyamalindu
US 6452740 B1	USPAT	20020917		Multi-stage thermoelectric microcoolers for cooling write coils and GMR sensors in magnetic heads for disk drives	360/97.02	360/123; 62/3.2	Ghoshal; Uttam Shyamalindu
US 6430936 B1	USPAT	20020813		Photonic microheatpipes	62/3.7		Ghoshal; Uttam Shyamalindu
US 6429694 B1	USPAT	20020806		Apparatus and method in an integrated circuit for delay line phase difference amplification	327/23	327/146; 327/153; 327/3	Ghoshal; Uttam Shyamalindu
US 6429665 B1	USPAT	20020806		Circuit for detecting an impedance change at a circuit input	324/664	324/649; 324/691; 365/189.01	Ghoshal; Uttam Shyamalindu
US 6429137 B1	USPAT	20020806		Solid state thermal switch	438/706	257/E21.415; 257/E49.001; 438/710; 438/712	Ghoshal; Uttam Shyamalindu
US 6403876 B1	USPAT	20020611		Enhanced interface thermoelectric coolers	136/205	136/201; 136/203	Ghoshal; Uttam

				with all-metal tips			Shyamalindu et al.
US 6384312 B1	USPAT	20020507		Thermoelectric coolers with enhanced structured interfaces	136/203	136/205; 136/236.1; 136/238; 136/240; 257/15	Ghoshal; Uttam Shyamalindu et al.
US 6356147 B1	USPAT	20020312		Wideband dual amplifier circuits	330/3	330/277; 330/311	Ghoshal; Uttam S.
US 6338251 B1	USPAT	20020115		Mixed thermoelectric cooling apparatus and method	62/3.2	257/E23.082; 62/3.4	Ghoshal; Uttam Shyamalindu
US 6282907 B1	USPAT	20010904		Thermoelectric cooling apparatus and method for maximizing energy transport	62/3.7	257/E23.082; 62/3.2; 977/742; 977/788; 977/833; 977/849; 977/890	Ghoshal; Uttam Shyamalindu
US 6266962 B1	USPAT	20010731		Highly reliable thermoelectric cooling apparatus and method	62/3.7	62/3.3	Ghoshal; Uttam Shyamalindu
US 6256996 B1	USPAT	20010710		Nanosopic thermoelectric coolers	62/3.7	136/203; 257/E23.082; 62/3.3; 977/742; 977/788; 977/833; 977/849; 977/890	Ghoshal; Uttam Shyamalindu
US 6222113 B1	USPAT	20010424		Electrically-isolated ultra-thin substrates for thermoelectric coolers	136/201	136/203; 62/3.3; 62/3.61; 62/3.7	Ghoshal; Uttam Shyamalindu
US 6221707 B1	USPAT	20010424		Method for fabricating a transistor having a variable threshold voltage	438/199	257/E21.633; 257/E29.051; 257/E29.086; 438/154; 438/197; 438/217	Ghoshal; Uttam Shyamalindu
US 6208702 B1	USPAT	20010327		High frequency clock signal distribution utilizing CMOS negative impedance terminations	375/354	324/629; 326/86	Ghoshal; Uttam Shyamalindu
US 6204165 B1	USPAT	20010320		Practical air dielectric interconnections by	438/619	257/276; 257/E21.581;	Ghoshal; Uttam

				post-processing standard CMOS wafers		257/E23.013; 257/E23.144; 438/624; 438/633; 438/634	Shyamalindu
US 6181143 B1	USPAT	20010130		Method for performing a high-temperature burn-in test on integrated circuits	324/752	257/48; 324/501; 324/760	Ghoshal; Uttam Shyamalindu
US 6161388 A	USPAT	20001219		Enhanced duty cycle design for micro thermoelectromechanical coolers	62/3.7		Ghoshal; Uttam Shyamalindu
US 6121850 A	USPAT	20000919		Digitally adjustable inductive element adaptable to frequency tune an LC oscillator	331/181	331/117FE; 331/179; 331/45; 334/11; 334/61	Ghoshal; Uttam Shyamalindu
US 6118284 A	USPAT	20000912		High speed magnetic flux sampling	324/750	324/765	Ghoshal; Uttam S. et al.
US 6105381 A	USPAT	20000822		Method and apparatus for cooling GMR heads for magnetic hard disks	62/259.2	62/3.2; 62/3.7	Ghoshal; Uttam Shyamalindu
US 6104213 A	USPAT	20000815		Domino logic circuit having a clocked precharge	326/98	326/112; 326/83; 327/534	Dhong; Sang Hoo et al.
US 6065293 A	USPAT	20000523		Thermoelectric cooling system	62/3.2	257/E23.082; 62/3.7	Ghoshal; Uttam Shyamalindu
US 6060759 A	USPAT	20000509		Method and apparatus for creating improved inductors for use with electronic oscillators	257/531	336/200; 438/381	Dhong; Sang Hoo et al.
US 6034408 A	USPAT	20000307		Solid state thermal switch	257/467	257/347; 257/617; 257/930; 257/E21.415; 257/E49.001	Ghoshal; Uttam Shyamalindu
US 6011441 A	USPAT	20000104		Clock distribution load buffer for an integrated circuit	331/55	327/144; 327/147; 327/295; 327/297; 331/56; 331/75	Ghoshal; Uttam Shyamalindu
US 6008705 A	USPAT	19991228		Crosstalk suppression in wide, high-speed buses	333/1	327/551; 333/12	Ghoshal; Uttam

							Shymalindu
US 6000225 A	USPAT	19991214		Two dimensional thermoelectric cooler configuration	62/3.7	62/335	Ghoshal; Uttam Shyamalindu
US 5966941 A	USPAT	19991019		Thermoelectric cooling with dynamic switching to isolate heat transport mechanisms	62/3.7	165/277; 257/E23.082; 62/3.6	Ghoshal; Uttam Shyamalindu
US 5952893 A	USPAT	19990914		Integrated circuit inductors for use with electronic oscillators	331/108C	257/531; 257/E27.046; 331/117FE; 331/167; 336/200; 336/220	Ghoshal; Uttam Shyamalindu
US 5946176 A	USPAT	19990831		Electrostatic discharge protection utilizing microelectromechanical switch	361/56	29/622; 361/111; 438/52	Ghoshal; Uttam Shyamalindu
US 5939869 A	USPAT	19990817		Low power interconnection using magnetoresistive elements	323/282		Ghoshal; Uttam Shamalindu
US 5912596 A	USPAT	19990615		Apparatus and method for frequency tuning an LC oscillator in a integrated clock circuit	331/117R	331/108B; 331/108C; 331/167; 331/45; 331/48; 331/74	Ghoshal; Uttam Shymalindu
US 5867990 A	USPAT	19990209		Thermoelectric cooling with plural dynamic switching to isolate heat transport mechanisms	62/3.7	165/185; 257/E23.082; 62/383	Ghoshal; Uttam Shyamalindu
US 5434530 A	USPAT	19950718		Superconducting semiconducting cross-bar circuit	327/527	327/366; 365/160; 365/162; 505/860	Ghoshal; Uttam S. et al.
US 5424656 A	USPAT	19950613		Continuous superconductor to semiconductor converter circuit	326/63	326/3; 327/367	Gibson; David A. et al.
US 5388068 A	USPAT	19950207		Superconductor-semiconductor hybrid memory circuits with superconducting three-terminal switching devices	365/162	257/E27.062; 365/161; 365/177; 365/182; 369/145; 505/170;	Ghoshal; Uttam S. et al.

						505/193; 505/834; 505/837; 505/841	
US 5347086 A	USPAT	19940913		Coaxial die and substrate bumps	174/261	174/260; 174/35R; 228/180.1; 257/E23.021	Potter; Curtis N. et al.
US 5024993 A	USPAT	19910618		Superconducting- semiconducting circuits, devices and systems	505/170	257/39; 257/E27.062; 326/1; 377/70; 377/93; 505/191; 505/701; 708/209	Kroger; Harry et al.
US 4980580 A	USPAT	19901225		CMOS interconnection circuit	326/2	326/24; 326/30; 326/86; 333/99S; 505/865; 505/866	Ghoshal; Uttam S.
US 4689505 A	USPAT	19870825		High speed bootstrapped CMOS driver	326/88	326/17	Ghoshal; Uttam S.